

Examiner-Initiated Interview Summary

Application No.

09/528,766

Applicant(s)

RADUE, MARTIN L.

Examiner

Timothy P. Solak

Art Unit

3746

All Participants:

(1) Timothy P. Solak.

(2) Timothy Ziolkowski.

Status of Application: Non-Final

(3) _____.

(4) _____.

Date of Interview: 1 October 2003

Time: P.M.

Type of Interview:



Telephonic



Video Conference



Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☒ No

If Yes, provide a brief description:

Part I.

Rejection(s) discussed:

103 Claim 1

Claims discussed:

1 and 8

Prior art documents discussed:

Tsukahara (5,064,353); Gully et al. (5,032,772) and Waring (4,940,035)

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

Part III.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed:

I informed Timothy Ziolkowski that I had discussed the case with my supervisor. I informed Timothy Ziolkowski, that a new reference Tsukahara (5,064,353) taught a moving coil that was controlled by alternating polarity signals; however the coil was controlled by frequency unless an overpressure condition changed the magnitude of the signal. Gully on the other hand taught the amplitude control of a coil that was stationary.

I suggested adding language such as; the amplitude of the signal controlled the force on the coil to cause the coil to move, as a possible solution. Timothy Ziolkowski questioned what the added limitation would do for the claim. I informed Timothy Ziolkowski that such language would bring out the amplitude signal moving the coil.

Timothy Ziolkowski stated that making the changes would be agreeing to the obviousness of the combination of Waring with Gully. Timothy Ziolkowski stressed there was no reason, other then applicants disclosure, to use Waring.

Timothy Ziolkowski again attacked the combination of Waring with Gully; but more specifically that the Waring reference did not teach the instant invention. Timothy Ziolkowski stressed his opinion, that there were no teachings or suggestions to separate the two-pump structure taught by Waring and that doing so would not produce a variable flow. Timothy Ziolkowski stressed that the variable flow disclosed by Waring came from a combination of the two pumps and that a single pump would not produce a variable flow.

I informed Timothy Ziolkowski that the division or unity of a part did not patentable define a structure and that one of ordinary skill would quickly realize that half of Waring could be used as a pump. Further I question Timothy Ziolkowski on the add emphasis to variable flow; citing the lack of a variable flow limitation in Claim 1.

Timothy Ziolkowski cited line 9, of Claim 1, "to produce pressure variations in the pump section" as a variable flow limitation. I informed Timothy Ziolkowski that Waring taught pressure variations in the pump section, namely within the cylinder. Further I informed Timothy Ziolkowski that any piston pump is going to develop pressure variations in the piston's cylinder. Moreover I informed Timothy Ziolkowski that the variations were caused by a force to draw fuel into the pump section and discharged fuel therefrom. I stressed there was no reason to assume the variations were outside of the pump because the claim defined the pump section as only, not being the motor section.

A discussion on the pressure variations followed. I questioned Timothy Ziolkowski as to whether the pressure variations where in relation to a change in volume similar to an injector, such that the change in amplitude resulted in a change in volume. Timothy Ziolkowski agreed the invention related to injectors.

I informed Timothy Ziolkowski that the claimed invention was a solenoid pump with a moving coil, which was well known in the art. I stated to Timothy Ziolkowski that operating a solenoid pump with a current was also pretty well known. Timothy Ziolkowski stressed a permanent magnet in a solenoid pump as a defining feature. I informed Timothy Ziolkowski that Waring taught a permanent magnet in a solenoid pump.

Timothy Ziolkowski and I agreed to think the matter over and continue our discussion later.

On 10/27/2003, Timothy Ziolkowski suggested some possible changes in the Claim language. [The changes expressed are reflected in the amendment received on 10/28/2003.]

I in formed Timothy Ziolkowski that I would review the changes and contact him later.

On 10/28/2003, I informed Timothy Ziolkowski that the propose changes to Claim 8 where moving in the right direction, namely connecting the pressure output to the amplitude of the signal. However I informed Timothy Ziolkowski, that in order to allow Claim 8, it would have to be limited to a moving coil because Gully taught a moving magnet controlled by changes in the amplitude of a signal. Further I informed Timothy Ziolkowski that the scope of the claims where changing from a pump with a moving coil to a control system for a pump.

Timothy Ziolkowski, disagree with the fact that the scope of the claims was changing and stressed his opinion, that the claims were always drawn to a variable displacement pump. Timothy Ziolkowski cited Claim 1, line 9, as support of his opinion, i.e. produce pressure variations.

I informed Timothy Ziolkowski that a variable displacement pump changed the volume of the pump chamber and "pressure variations at the output" was not analogous.

Our discussion turned to the art rejections, namely Waring in view of Gully et al. Timothy Ziolkowski stressed, that in his opinion, the combination was not possible because Waring required two pumps in order to alter displacement; both pumps were needed to work together. Nowhere in Waring, Timothy Ziolkowski stressed, was a teaching of using amplitude changes to vary the pressure output.

I informed Timothy Ziolkowski that I disagreed and suggested I would discuss the application with my supervisor.